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CHAPTER I--FEDERAL ENERGY REGULATORY COMMISSION, DEPARTMENT OF ENERGY

### **Electric Plant Accounts**

## 301 Organization.

This account shall include all fees paid to federal or state governments for the privilege of incorporation and expenditures incident to organizing the corporation, partnership, or other enterprise and putting it into readiness to do business.

### **ITEMS**

- 1. Cost of obtaining certificates authorizing an enterprise to engage in the public-utility business.
  - 2. Fees and expenses for incorporation
  - 3. Fees and expenses for mergers or consolidations.
  - 4. Office expenses incident to organizing the utility.
  - 5. Stock and minute books and corporate seal.

Note A: This account shall not include any discounts upon securities issued or assumed;

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nor shall it include any costs incident to negotiating loans, selling bonds or other evidences of debt or expenses in connection with the authorization, issuance or sale of capital stock.

Note B: Exclude from this account and include in the appropriate expense account the cost of preparing and filing papers in connection with the extension of the term of incorporation unless the first organization costs have been written off. When charges are made to this account for expenses incurred in mergers, consolidations, or

reorganizations, amounts previously included herein or in similar accounts in the books of the companies concerned shall be excluded from this account.

### 302 Franchises and consents.

A. This account shall include amounts paid to the federal government, to a state or to a political subdivision thereof in consideration for franchises, consents, water power licenses, or certificates, running in perpetuity or for a specified term of more than one year, together with necessary and reasonable expenses incident to procuring such franchises, consents, water power licenses, or certificates of permission and approval, including expenses of organizing and merging separate corporations, where statutes require, solely for the purpose of acquiring franchises.

- B. If a franchise, consent, water power license or certificate is acquired by assignment, the charge to this account in respect thereof shall not exceed the amount paid therefor by the utility to the assignor, nor shall it exceed the amount paid by the original grantee, plus the expense of acquisition to such grantee. Any excess of the amount actually paid by the utility over the amount above specified shall be charged to account 426.5, Other Deductions.
- C. When any franchise has expired, the book cost thereof shall be credited hereto and charged to account 426.5, Other Deductions, or to account 111, Accumulated Provision for Amortization of Electric Utility Plant (for Nonmajor utilities, account 110, Accumulated Provision for Depreciation and Amortization of Electric Plant), as appropriate.
- D. Records supporting this account shall be kept so as to show separately the book cost of each franchise or consent.

Note: Annual or other periodic payments under franchises shall not be included herein but in the appropriate operating expense account.

## 303 Miscellaneous intangible plant.

A. This account shall include the cost of patent rights, licenses, privileges, and other intangible property necessary or valuable in the conduct of utility operations and not specifically chargeable to any other account.

B. When any item included in this account is retired or expires, the book cost thereof shall be credited hereto and charged to account 426.5, Other Deductions, or account 111, Accumulated Provision for Amortization

of Electric Utility Plant (for Nonmajor utilities, account 110, Accumulated Provision for Depreciation and Amortization of Electric Plant), as appropriate.

C. This account shall be maintained in such a manner that the utility can furnish full information with respect to the amounts included herein.

## 310 Land and land rights.

This account shall include the cost of land and land rights used in connection with steam-power generation. (See electric plant instruction 7.)

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### 311 Structures and improvements.

This account shall include the cost in place of structures and improvements used in connection with steam-power generation. (See electric plant instruction 8.)

Note: Include steam production roads and railroads in this account.

## 312 Boiler plant equipment.

This account shall include the cost installed of furnaces, boilers, coal and ash handling and coal preparing equipment, steam and feed water piping, boiler apparatus and accessories used in the production of steam, mercury, or other vapor, to be used primarily for generating electricity.

### **ITEMS**

1. Ash handling equipment, including hoppers, gates, cars, conveyors, hoists, sluicing equipment, including pumps and motors,

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sluicing water pipe and fittings, sluicing trenches and accessories, etc., except sluices which are a part of a building.

2. Boiler feed system, including feed water heaters, evaporator condensers, heater drain pumps, heater drainers, deaerators, and vent

condensers, boiler feed pumps, surge tanks, feed water regulators, feed water measuring equipment, and all associated drives.

- 3. Boiler plant cranes and hoists and associated drives.
- 4. Boilers and equipment, including boilers and baffles, economizers, superheaters, soot blowers, foundations and settings, water walls, arches, grates, insulation, blow-down system, drying out of new boilers, also associated motors or other power equipment.
- 5. Breeching and accessories, including breeching, dampers, soot spouts, hoppers and gates, cinder eliminators, breeching insulation, soot blowers and associated motors.
- 6. Coal handling and storage equipment, including coal towers, coal lorries, coal cars, locomotives and tracks when devoted principally to the transportation of coal, hoppers, downtakes, unloading and hoisting equipment, skip hoists and conveyors, weighing equipment, magnetic separators, cable ways, housings and supports for coal handling equipment.
- 7. Draft equipment, including air preheaters and accessories, induced and forced draft fans, air ducts, combustion control mechanisms, and associated motors or other power equipment.
- 8. Gas-burning equipment, including holders, burner equipment and piping, control equipment, etc.
- 9. Instruments and devices, including all measuring, indicating, and recording equipment for boiler plant service together with mountings and supports.
  - 10. Lighting systems.
- 11. Oil-burning equipment, including tanks, heaters, pumps with drive, burner equipment and piping, control equipment, etc.
- 12. Pulverized fuel equipment, including pulverizers, accessory motors, primary air fans, cyclones and ducts, dryers, pulverized fuel bins, pulverized fuel conveyors and equipment, burners, burner piping, priming equipment, air compressors, motors, etc.
- 13. Stacks, including foundations and supports, stack steel and ladders, stack brick work, stack concrete, stack lining, stack painting (first), when set on separate foundations, independent of substructure or superstructure of building.
- 14. Station piping, including pipe, valves, fittings, separators, traps, desuperheaters, hangers, excavation, covering, etc., for station piping system, including all steam, condensate, boiler feed and water supply piping, etc., but not condensing water, plumbing, building heating, oil, gas, air piping or piping specifically provided for in account 313.
- 15. Stoker or equivalent feeding equipment, including stokers and accessory motors, clinker grinders, fans and motors, etc.

- 16. Ventilating equipment.
- 17. Water purification equipment, including softeners and accessories, evaporators and accessories, heat exchangers, filters, tanks for filtered or softened water, pumps, motors, etc.
- 18. Water-supply systems, including pumps, motors, strainers, raw-water storage tanks, boiler wash pumps, intake and discharge pipes and tunnels not a part of a building.
- 19. Wood fuel equipment, including hoppers, fuel hogs and accessories, elevators and conveyors, bins and gates, spouts, measuring equipment and associated drives.

Note: When the system for supplying boiler or condenser water is elaborate, as when it includes a dam, reservoir, canal, pipe line, cooling ponds, or where gas or oil is used as a fuel for producing steam and is supplied through a pipe line system owned by the utility, the cost of such special facilities shall be charged to a subdivision of account 311, Structures and Improvements.

## 313 Engines and engine-driven generators.

This account shall include the cost installed of steam engines, reciprocating or rotary, and their associated auxiliaries; and enginedriven main generators, except turbogenerator units.

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- 1. Air cleaning and cooling apparatus, including blowers, drive equipment, air ducts not a part of building, louvers, pumps, hoods, etc.
  - 2. Belting, shafting, pulleys, reduction gearing, etc.
- 3. Circulating pumps, including connections between condensers and intake and discharge tunnels.
  - 4. Cooling system, including towers, pumps, tank, and piping.
- 5. Condensers, including condensate pumps, air and vacuum pumps, ejectors, unloading valves and vacuum breakers, expansion devices, screens, etc.
- 6. Cranes, hoists, etc., including items wholly identified with items listed herein.
  - 7. Engines, reciprocating or rotary.
  - 8. Fire-extinguishing systems.
- 9. Foundations and settings, especially constructed for and not expected to outlast the apparatus for which provided.

- 10. Generators--Main, a.c. or d.c., including field rheostats and connections for self-excited units, and excitation systems when identified with the generating unit.
  - 11. Governors.

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- 12. Lighting systems.
- 13. Lubricating systems including gauges, filters, tanks, pumps, piping, motors, etc.
- 14. Mechanical meters, including gauges, recording instruments, sampling and testing equipment.
- 15. Piping--main exhaust, including connections between generator and condenser and between condenser and hotwell.
- 16. Piping--main steam, including connections from main throttle valve to turbine inlet.
- 17. Platforms, railings, steps, gratings, etc., appurtenant to apparatus listed herein.
- 18. Pressure oil system, including accumulators, pumps, piping, motors, etc.
  - 19. Throttle and inlet valve.
- 20. Tunnels, intake and discharge, for condenser system, when not a part of a structure.
  - 21. Water screens, motors, etc.

# 314 Turbogenerator units.

This account shall include the cost installed of main turbine-driven units and accessory equipment used in generating electricity by steam.

- 1. Air cleaning and cooling apparatus, including blowers, drive equipment, air ducts not a part of building, louvers, pumps, hoods, etc.
- 2. Circulating pumps, including connections between condensers and intake and discharge tunnels.
- 3. Condensers, including condensate pumps, air and vacuum pumps, ejectors, unloading valves and vacuum breakers, expansion devices, screens, etc.
  - 4. Generator hydrogen, gas piping and detrainment equipment.
  - 5. Cooling system, including towers, pumps, tanks, and piping.
- 6. Cranes, hoists, etc., including items wholly identified with items listed herein.

- 7. Excitation system, when identified with main generating units.
- 8. Fire-extinguishing systems.
- 9. Foundations and settings, especially constructed for and not expected to outlast the apparatus for which provided.
  - 10. Governors.
  - 11. Lighting systems.
- 12. Lubricating systems, including gauges, filters, water separators, tanks, pumps, piping, motors, etc.
- 13. Mechanical meters, including gauges, recording instruments, sampling and testing equipment.
- 14. Piping--main exhaust, including connections between turbogenerator and condenser and between condenser and hotwell.
- 15. Piping--main steam, including connections from main throttle valve to turbine inlet.
- 16. Platforms, railings, steps, gratings, etc., appurtenant to apparatus listed herein.
- 17. Pressure oil systems, including accumulators, pumps, piping, motors, etc.
  - 18. Steelwork, specially constructed for apparatus listed herein.
  - 19. Throttle and inlet valve.
- 20. Tunnels, intake and discharge, for condenser system, when not a part of structure, water screens, etc.
- 21. Turbogenerators--main, including turbine and generator, field rheostats and electric connections for self-excited units.
  - 22. Water screens, motors, etc.
  - 23. Moisture separator for turbine steam.
  - 24. Turbine lubricating oil (initial charge).

# 315 Accessory electric equipment.

This account shall include the cost installed of auxiliary generating apparatus, conversion equipment, and equipment used primarily in connection with the control and switching of electric energy produced by steam power, and the protection of electric circuits and equipment, except electric motors used to drive equipment included in other accounts. Such motors shall be included in the account in which the equipment with which they are associated is included.

- 1. Auxiliary generators, including boards, compartments, switching equipment, control equipment, and connections to auxiliary power bus.
  - 2. Excitation system, including motor, turbine and dual-drive

exciter sets and rheostats, storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, generator field and exciter switch panels, exciter bus tie panels, generator and exciter rheostats, etc., special housing, protective screens, etc.

- 3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads grounding switch, etc., special housings, protective screens, etc.
- 4. Station buses including main, auxiliary, transfer, synchronizing and fault ground

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buses, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors, starting transformers, current transformers, potential transformers, protective relays, storage batteries and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special housings, concrete pads, general station grounding system, special fire-extinguishing system, and test equipment.

5. Station control system, including station switchboards with panel wiring, panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, truck-type boards complete, cubicles, station supervisory control boards, generator and exciter signal stands, temperature recording devices, frequency-control equipment, master clocks, watt-hour meters and synchronoscope in the turbine room, station totalizing wattmeter, boiler-room load indicator equipment, storage batteries, panels and charging sets, instrument transformers for supervisory metering, conductors and conduit, special supports for conduit, switchboards, batteries, special housing for batteries, protective screens, doors, etc.

Note A: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electricity for the purposes of transmission or distribution.

Note B: When any item of equipment listed herein is used wholly to

furnish power to equipment included in another account, its cost shall be included in such other account.

## 316 Miscellaneous power plant equipment.

This account shall include the cost installed of miscellaneous equipment in and about the steam generating plant devoted to general station use, and which is not properly includible in any of the foregoing steam-power production accounts.

### **ITEMS**

- 1. Compressed air and vacuum cleaning systems, including tanks, compressors, exhausters, air filters, piping, etc.
- 2. Cranes and hoisting equipment, including cranes, cars, crane rails, monorails, hoists, etc., with electric and mechanical connections.
  - 3. Fire-extinguishing equipment for general station use.
- 4. Foundations and settings specially constructed for and not expected to outlast the apparatus for which provided.
  - 5. Locomotive cranes not includible elsewhere.
  - 6. Locomotives not includible elsewhere.
  - 7. Marine equipment, including boats, barges, etc.
  - 8. Miscellaneous belts, pulleys, countershafts, etc.
- 9. Miscellaneous equipment, including atmospheric and weather indicating devices, intrasite communication equipment, laboratory equipment, signal systems, callophones emergency whistles and sirens, fire alarms, insect-control equipment, and other similar equipment.
  - 10. Railway cars not includible elsewhere.
- 11. Refrigerating systems, including compressors, pumps, cooling coils, etc.
- 12. Station maintenance equipment, including lathes, shapers, planers, drill presses, hydraulic presses, grinders, etc., with motors, shafting, hangers, pulleys, etc.
- 13. Ventilating equipment, including items wholly identified with apparatus listed herein.

Note: When any item of equipment listed herein is wholly used in connection with equipment included in another account, its cost shall be included in such other account.

# 320 Land and land rights (Major only).

This account shall include the cost of land and land rights used in connection with nuclear power generation. (See electric plant instruction 7.)

## 321 Structures and improvements (Major only).

This account shall include the cost in place of structures and improvements used and useful in connection with nuclear power generation. (See electric plant instruction 8.)

Note: Include vapor containers and nuclear production roads and railroads in this account.

## 322 Reactor plant equipment (Major only).

This account shall include the installed cost of reactors, reactor fuel handling and storage equipment, pressurizing equipment, coolant charging equipment, purification and discharging equipment, radioactive waste treatment and disposal equipment, boilers, steam and feed water piping, reactor and boiler apparatus and accessories and other reactor plant equipment used in the production of steam to be used primarily for generating

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electricity, including auxiliary superheat boilers and associated equipment in systems which change temperatures or pressure of steam from the reactor system.

- 1. Auxiliary superheat boilers and associated fuel storage handling preparation and burning equipment, etc. (See account 312 Boiler Plant Equipment, for items, but exclude water supply, water flow lines, and steam lines, as well as other equipment not strictly within the superheat function.)
- 2. Boiler feed system, including feed water heaters, evaporator condensers, heater drain pumps, heater drainers, deaerators, and vent condensers, boiler feed pumps, surge tanks, feed water regulators, feed water measuring equipment, and all associated drivers.
  - 3. Boilers and heat exchangers.
  - 4. Instruments and devices, including all measuring, indicating, and

recording equipment for reactor and boiler plant service together with mountings and supports.

- 5. Lighting systems.
- 6. Moderators, such as heavy water, graphite, etc., initial charge.
- 7. Reactor coolant; primary and secondary systems (initial charge).
- 8. Radioactive waste treatment and disposal equipment, including tanks, ion exchangers, incinerators, condensers, chimneys, and diluting fans and pumps.
- 9. Foundations and settings, especially constructed for and not expected to outlast the apparatus for which provided.
  - 10. Reactor including shielding, control rods and mechanisms.
- 11. Reactor fuel handling equipment, including manipulating and extraction tools, underwater viewing equipment, seal cutting and welding equipment, fuel transfer equipment and fuel disassembly machinery.
  - 12. Reactor fuel element failure detection system.
  - 13. Reactor emergency poison container and injection system.
- 14. Reactor pressurizing and pressure relief equipment, including pressurizing tanks and immersion heaters.
- 15. Reactor coolant or moderator circulation charging, purification, and discharging equipment, including tanks, pumps, heat exchangers, demineralizers, and storage.
- 16. Station piping, including pipes, valves, fittings, separators, traps, desuperheaters, hangers, excavation, covering, etc., for station piping system, including all-reactor coolant, steam, condensate, boiler feed and water supply piping, etc., but not condensing water, plumbing, building heating, oil, gas, or air piping.
  - 17. Ventilating equipment.
- 18. Water purification equipment, including softeners, demineralizers, and accessories, evaporators and accessories, heat exchangers, filters, tanks for filtered or softened water, pumps, motors, etc.
- 19. Water supply systems, including pumps, motors, strainers, rawwater storage tanks, boiler wash pumps, intake and discharge pipes and tunnels not a part of a building.
  - 20. Reactor plant cranes and hoists, and associated drives.

Note: When the system for supplying boiler or condenser water is elaborate, as when it includes a dam, reservoir, canal, pipe lines, or cooling ponds, the cost of such special facilities shall be charged to a subdivision of account 321, Structures and Improvements.

# 323 Turbogenerator units (Major only).

This account shall include the cost installed of main turbine-driven units and accessory equipment used in generating electricity by steam.

### **ITEMS**

- 1. Air cleaning and cooling apparatus, including blowers, drive equipment, air ducts not a part of building, louvers, pumps, hoods, etc.
- 2. Circulating pumps, including connections between condensers, and intake and discharge tunnels.
- 3. Condensers, including condensate pumps, air and vacuum pumps ejectors, unloading valves and vacuum breakers, expansion devices, screens, etc.
- 4. Generator hydrogen gas piping system and hydrogen detrainment equipment, and bulk hydrogen gas storage equipment.
  - 5. Cooling system, including towers, pumps, tanks and piping.
- 6. Cranes, hoists, etc., including items wholly identified with items listed herein.
  - 7. Excitation system, when identified with main generating units.
  - 8. Fire extinguishing systems.
- 9. Foundations and settings, especially constructed for and not expected to outlast the apparatus for which provided.
  - 10. Governors.
  - 11. Lighting systems.
- 12. Lubricating systems, including gauges filters, water separators, tanks, pumps, piping motors, etc.
- 13. Mechanical meters, including gauges recording instruments, sampling and testing equipment.
- 14. Piping--main exhaust, including connections between turbogenerator and condenser and between condenser and hotwell.
- 15. Piping--main steam, including connections from main throttle valve to turbine inlet.
- 16. Platforms, railings, steps, gratings, etc. appurtenant to apparatus listed herein.

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- 17. Pressure oil systems, including accumulators, pumps, piping, motors, etc.
  - 18. Steelwork, specially constructed for apparatus listed herein.
  - 19. Throttle and inlet valve.
- 20. Tunnels, intake and discharge, for condenser system, when not a part of structure water screens, etc.
- 21. Turbogenerators--main, including turbine and generator, field rheostats and electric connections for self-excited units.

- 22. Water screens, motors, etc.
- 23 Moisture separators for turbine steam.
- 24. Turbine lubricating oil (initial charge).

## 324 Accessory electric equipment (Major only).

This account shall include the cost installed of auxiliary generating apparatus, conversion equipment, and equipment used primarily in connection with the control and switching of electric energy produced by nuclear power, and the protection of electric circuits and equipment, except electric motors used to drive equipment included in other accounts. Such motors shall be included in the account in which the equipment with which they are associated is included.

Note: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electric energy for the purpose of transmission or distribution.

- 1. Auxiliary generators, including boards, compartments, switching equipment, control equipment, and connections to auxiliary power bus.
- 2. Excitation system, including motor, turbine and dual-drive exciter sets and rheostats, storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, generator field and exciter switch panels, exciter bus tie panels, generator and exciter rheostats, etc., special housing, protective screens, etc.
- 3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads, grounding switch, etc., special housings, protective screens, etc.
- 4. Station buses, including main, auxiliary, transfer, synchronizing and fault ground buses, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors, starting transformers, current transformers, potential transformers, protective relays, storage batteries and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special housings, concrete

pads, general station grounding system, fire-extinguishing system, and test equipment.

5. Station control system, including station switchboards with panel wiring, panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, truck-type boards complete, cubicles, station supervisory control boards, generator and exciter signal stands, temperature recording devices, frequency-control equipment, master clocks, watt-hour meters and synchronoscope in the turbine room, station totalizing wattmeter, boiler-room load indicator equipment, storage batteries, panels and charging sets, instrument transformers for supervisory metering, conductors and conduit, special supports for conduit, switchboards, batteries, special housing for batteries, protective screens, doors, etc.

Note: When any item of equipment listed herein is used wholly to furnish power to equipment included in another account, its cost shall be included in such other account

## 325 Miscellaneous power plant equipment (Major only).

This account shall include the cost installed of miscellaneous equipment in and about the nuclear generating plant devoted to general station use, and which is not properly includible in any of the foregoing nuclear-power production accounts.

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- 1. Compressed air and vacuum cleaning systems, including tanks, compressors, exhausters, air filters, piping, etc.
- 2. Cranes and hoisting equipment, including cranes, cars, crane rails, monorails, hoists, etc., with electric and mechanical connections.
  - 3. Fire-extinguishing equipment for general station and site use.
- 4. Foundations and settings specially constructed for and not expected to outlast the apparatus for which provided.
  - 5. Locomotive cranes not includible elsewhere.
  - 6. Locomotives not included elsewhere.
  - 7. Marine equipment, including boats, barges, etc.

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- 8. Miscellaneous belts, pulleys, countershafts, etc.
- 9. Miscellaneous equipment, including atmospheric and weather

recording devices, intrasite communication equipment, laboratory equipment, signal systems, callophones emergency whistles and sirens, fire alarms, insect-control equipment, and other similar equipment.

- 10. Railway cars or special shipping containers not includible elsewhere.
- 11. Refrigerating systems, including compressors, pumps, cooling coils, etc.
- 12. Station maintenance equipment, including lathes, shapers, planers, drill presses, hydraulic presses, grinders, etc., with motors, shafting, hangers, pulleys, etc.
- 13. Ventilating equipment, including items wholly identified with apparatus listed herein.
  - 14. Station and area radiation monitoring equipment.

Note: When any item of equipment listed herein is wholly used in connection with equipment included in another account, its cost shall be included in such other account.

### 330 Land and land rights.

This account shall include the cost of land and land rights used in connection with hydraulic power generation. (See electric plant instruction 7.) For Major utilities, it shall also include the cost of land and land rights used in connection with (1) the conservation of fish and wildlife, and (2) recreation. Separate subaccounts shall be maintained for each of the above.

## 331 Structures and improvements.

This account shall include the cost in place of structures and improvements used in connection with hydraulic power generation. (See electric plant instruction 8.) For Major utilities, it shall also include the cost in place of structures and improvements used in connection with (1) the conservation of fish and wildlife, and (2) recreation. Separate subaccounts shall be maintained for each of the above.

# 332 Reservoirs, dams, and waterways.

This account shall include the cost in place of facilities used for impounding, collecting, storage, diversion, regulation, and delivery of water used primarily for generating electricity. For Major utilities, it shall also include the cost in place of facilities used in connection with (a) the conservation of fish and wildlife, and (b) recreation. Separate subaccounts shall be maintained for each of the above. (See electric plant instruction 8C.)

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- 1. Bridges and culverts (when not a part of roads or railroads).
- 2. Clearing and preparing land.
- 3. Dams, including wasteways, spillways, flash boards, spillway gates with operating and control mechanisms, tunnels, gate houses, and fish ladders.
  - 4. Dikes and embankments.
- 5. Electric system, including conductors control system, transformers, lighting fixtures, etc.
- 6. Excavation, including shoring, bracing, bridging, refill, and disposal of excess excavated material.
- 7. Foundations and settings specially constructed for and not expected to outlast the apparatus for which provided.
- 8. Intakes, including trash racks, rack cleaners, control gates and valves with operating mechanisms, and intake house when not a part of station structure.
- 9. Platforms, railings, steps, gratings, etc., appurtenant to structures listed herein.
  - 10. Power line wholly identified with items included herein.
  - 11. Retaining walls.
- 12. Water conductors and accessories, including canals, tunnels, flumes, penstocks pipe conductors, forebays, tailraces, navigation locks and operating mechanisms, waterhammer and surge tanks, and supporting trestles and structures.
- 13. Water storage reservoirs, including dams, flashboards, spillway gates and operating mechanisms, inlet and outlet tunnels,

regulating valves and valve towers, silt and mud sluicing tunnels with valve or gate towers, and all other structures wholly identified with any of the foregoing items.

## 333 Water wheels, turbines and generators.

This account shall include the cost installed of water wheels and hydraulic turbines (from connection with penstock or flume to tailrace) and generators driven thereby devoted to the production of electricity by water power or for the production of power for industrial or other purposes, if the equipment used for such purposes is a part of the hydraulic power plant works.

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- 1. Exciter water wheels and turbines, including runners, gates, governors, pressure regulators, oil pumps, operating mechanisms, scroll cases, draft tubes, and draft-tube supports.
  - 2. Fire-extinguishing equipment.
- 3. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
- 4. Generator cooling system, including air cooling and washing apparatus, air fans and accessories, air ducts, etc.
- 5. Generators--main, a.c. or d.c., including field rheostats and connections for self-excited units and excitation system when identified with the generating unit.
  - 6. Lighting systems.
- 7. Lubricating systems, including gauges, filters, tanks, pumps, piping, etc.
- 8. Main penstock valves and appurtenances, including main valves, control equipment, bypass valves and fittings, and other accessories.
- 9. Main turbines and water wheels, including runners, gates, governors, pressure regulators, oil pumps, operating mechanisms, scroll cases, draft tubes, and draft-tube supports.
  - 10. Mechanical meters and recording instruments.
- 11. Miscellaneous water-wheel equipment, including gauges, thermometers, meters, and other instruments.
- 12. Platforms, railings, steps, gratings, etc., appurtenant to apparatus listed herein.
- 13. Scroll case filling and drain system, including gates, pipe, valves, fittings, etc.
- 14. Water-actuated pressure-regulator system, including tanks and housings, pipes, valves, fittings and insulations, piers and anchorage, and excavation and backfill.

# 334 Accessory electric equipment.

This account shall include the cost installed of auxiliary generating apparatus, conversion equipment, and equipment used primarily in connection with the control and switching of electric energy produced by hydraulic power and the protection of electric circuits and equipment, except electric motors used to drive equipment included in other accounts, such motors being included in the account in which the equipment with which they are associated is included.

#### **ITEMS**

- 1. Auxiliary generators, including boards, compartments, switching equipment, control equipment, and connections to auxiliary power bus.
- 2. Excitation system, including motor, turbine, and dual-drive exciter sets and rheostats, storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, generator field and exciter switch panels, exciter bus tie panels, generator and exciter rheostats, etc., special housings, protective screens, etc.
- 3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads, grounding switch, etc., special housings, protective screens, etc.
- 4. Station buses, including main, auxiliary, transfer, synchronizing, and fault ground buses, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors starting transformers, current transformers, potential transformers, protective relays, storage batteries, and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special fire-extinguishing system, and test equipment.
- 5. Station control system, including station switchboards with panel wiring panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, trucktype boards complete, cubicles, station supervisory control devices, frequency control equipment, master clocks, watt-hour meter, station totalizing watt-meter, storage batteries, panels and charging sets, instrument transformers for supervisory metering, conductors and conduit, special supports for conduit, switchboards, batteries, special housings for batteries, protective screens, doors, etc.

Note A: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electricity for the purpose of transmission or distribution.

Note B: When any item of equipment listed herein is used wholly to furnish power to equipment, it shall be included in such equipment account.

## 335 Miscellaneous power plant equipment.

This account shall include the cost installed of miscellaneous equipment in and about the hydroelectric generating plant which is devoted to general

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station use and is not properly includible in other hydraulic production accounts. For Major utilities, it shall also include the cost of equipment used in connection with (a) the conservation of fish and wildlife, and (b) recreation. Separate subaccounts shall be maintained for each of the above.

- 1. Compressed air and vacuum cleaning systems, including tanks, compressors, exhausters, air filters, piping, etc.
- 2. Cranes and hoisting equipment, including cranes, cars, crane rails, monorails, hoists, etc., with electric and mechanical connections.
  - 3. Fire-extinguishing equipment for general station use.
- 4. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
  - 5. Locomotive cranes not includible elsewhere.
  - 6. Locomotives not includible elsewhere.
  - 7. Marine equipment, including boats, barges, etc.
  - 8. Miscellaneous belts, pulleys, countershafts, etc.
- 9. Miscellaneous equipment, including atmospheric and weather indicating devices, intrasite communication equipment, laboratory equipment, insect control equipment, signal systems, callophones, emergency whistles and sirens, fire alarms, and other similar equipment.
  - 10. Railway cars, not includible elsewhere.
- 11. Refrigerating system, including compressors, pumps, cooling coils, etc.
- 12. Station maintenance equipment, including lathes, shapers, planers, drill presses, hydraulic presses, grinders, etc., with motors, shafting, hangers, pulleys, etc.
  - 13. Ventilating equipment, including items wholly identified with

apparatus listed herein.

Note: When any item of equipment, listed herein is used wholly in connection with equipment included in another account, its cost shall be included in such other account.

## 336 Roads, railroads and bridges.

This account shall include the cost of roads, railroads, trails, bridges, and trestles used primarily as production facilities. It includes also those roads, etc., necessary to connect the plant with highway transportation systems, except when such roads are dedicated to public use and maintained by public authorities.

### **ITEMS**

- 1. Bridges, including foundations, piers, girders, trusses, flooring, etc.
  - 2. Clearing land.
- 3. Railroads, including grading, ballast, ties, rails, culverts, hoists, etc.
  - 4. Roads, including grading, surfacing, culverts, etc.
- 5. Structures, constructed and maintained in connection with items listed herein.
  - 6. Trails, including grading, surfacing, culverts, etc.
- 7. Trestles, including foundations, piers, girders, trusses, flooring, etc.

Note A: Roads intended primarily for connecting employees' houses with the powerplant, and roads used primarily in connection with fish and wildlife, and recreation activities, shall not be included herein but in account 331, Structures and Improvements.

Note B: The cost of temporary roads, bridges, etc. necessary during the period of construction but abandoned or dedicated to public use upon completion of the plant, shall not be included herein but shall be charged to the accounts appropriate for the construction.

### 340 Land and land rights.

This account shall include the cost of land and land rights used in connection with other power generation. (See electric plant instruction

## 341 Structures and improvements.

This account shall include the cost in place of structures and improvements used in connection with other power generation. (See electric plant instruction 8.)

# 342 Fuel holders, producers, and accessories.

This account shall include the cost installed of fuel handling and storage equipment used between the point of fuel delivery to the station and the intake pipe through which fuel is directly drawn to the engine, also the cost of gas producers and accessories devoted to the production of gas for use in prime movers driving main electric generators.

### **ITEMS**

- 1. Blower and fans.
- 2. Boilers and pumps.
- 3. Economizers.
- 4. Exhauster outfits.
- 5. Flues and piping.
- 6. Pipe system.

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- 7. Producers.
- 8. Regenerators.
- 9. Scrubbers.
- 10. Steam injectors.
- 11. Tanks for storage of oil, gasoline, etc.
- 12. Vaporizers.

### 343 Prime movers.

This account shall include the cost installed of Diesel or other prime movers devoted to the generation of electric energy, together with their auxiliaries.

- 1. Air-filtering system.
- 2. Belting, shafting, pulleys, reduction gearing, etc.
- 3. Cooling system, including towers, pumps, tanks, and piping.
- 4. Cranes, hoists, etc., including items wholly identified with apparatus listed herein.
  - 5. Engines, Diesel, gasoline, gas, or other internal combustion.
- 6. Foundations and settings specially constructed for and not expected to outlast the apparatus for which provided.
  - 7. Governors.
  - 8. Ignition system.
  - 9. Inlet valve.
  - 10. Lighting systems.
- 11. Lubricating systems, including filters, tanks, pumps, and piping.
- 12. Mechanical meters, including gauges, recording instruments, sampling, and testing equipment.
  - 13. Mufflers.
  - 14. Piping.
- 15. Starting systems, compressed air, or other, including compressors and drives, tanks, piping, motors, boards and connections, storage tanks, etc.
  - 16. Steelwork, specially constructed for apparatus listed herein.
  - 17. Waste heat boilers, antifluctuators, etc.

### 344 Generators.

This account shall include the cost installed of Diesel or other power driven main generators.

- 1. Cranes, hoists, etc., including items wholly identified with such apparatus.
  - 2. Fire-extinguishing equipment.
- 3. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
- 4. Generator cooling system, including air cooling and washing apparatus, air fans and accessories, air ducts, etc.
- 5. Generators--main, a.c. or d.c., including field rheostats and connections for self-excited units and excitation system when identified with the generating unit.
  - 6. Lighting systems.
  - 7. Lubricating system, including tanks, filters, strainers, pumps,

piping, coolers, etc.

- 8. Mechanical meters, and recording instruments.
- 9. Platforms, railings, steps, gratings, etc., appurtenant to apparatus listed herein.

Note: If prime movers and generators are so integrated that it is not practical to classify them separately, the entire unit may be included in account 344, Generators.

## 345 Accessory electric equipment.

This account shall include the cost installed of auxiliary generating apparatus, conversion equipment, and equipment used primarily in connection with the control and switching of electric energy produced in other power generating stations, and the protection of electric circuits and equipment, except electric motors used to drive equipment included in other accounts. Such motors shall be included in the account in which the equipment with which it is associated is included.

- 1. Auxiliary generators, including boards, compartments, switching equipment, control equipment, and connections to auxiliary power bus.
- 2. Excitation system, including motor, turbine and dual-drive exciter sets and rheostats, storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, generator field and exciter switch panels, exciter bus tie panels, generator and exciter rheostats, etc., special housings, protective screens, etc.
- 3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads, grounding switch, etc., special housing, protective screens, etc.
- 4. Station control system, including station switchboards with panel wiring, panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, trunktype boards complete, cubicles, station supervisory control boards, generator and exciter signal stands, temperature-recording

devices, frequency control equipment, master clocks, watt-hour meter, station totalizing wattmeter, storage batteries, panels and charging sets, instrument transformers for supervisory metering, conductors and conduit, special supports for conduit, switchboards, batteries, special housing for batteries, protective screens, doors, etc.

5. Station buses, including main, auxiliary transfer, synchronizing and fault ground buses, including oil curcuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors, starting transformers, current transformers, potential transformers, protective relays, storage batteries and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special housings, concrete pads, general station ground system, special fire-extinguishing system, and test equipment.

Note A: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electric energy for the purpose of transmission or distribution.

Note B: When any item of equipment listed herein is used wholly to furnish power to equipment included in another account, its cost shall be included in such other account.

## 346 Miscellaneous power plant equipment.

This account shall include the cost installed of miscellaneous equipment in and about the other power generating plant, devoted to general station use, and not properly includible in any of the foregoing other power production accounts.

- 1. Compressed air and vacuum cleaning systems, including tanks, compressors, exhausters, air filters, piping, etc.
- 2. Cranes and hoisting equipment, including cranes, cars, crane rails, monorails, hoists, etc., with electric and mechanical connections.
  - 3. Fire-extinguishing equipment for general station use.
- 4. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
- 5. Miscellaneous equipment, including atmospheric and weather indicating devices, intrasite communication equipment, laboratory

equipment, signal systems, callophones, emergency whistles and sirens, fire alarms, and other similar equipment.

- 6. Miscellaneous belts, pulleys, countershafts, etc.
- 7. Refrigerating system including compressors, pumps, cooling coils, etc.
- 8. Station maintenance equipment, including lathes, shapers, planers, drill presses, hydraulic presses, grinders, etc., with motors, shafting, hangers, pulleys, etc.
- 9. Ventilating equipment, including items wholly identified with apparatus listed herein.

Note: When any item of equipment, listed herein is used wholly in connection with equipment included in another account, its cost shall be included in such other account.

## 350 Land and land rights.

This account shall include the cost of land and land rights used in connection with transmission operations. (See electric plant instruction 7.)

## 351 [Reserved]

## 352 Structures and improvements.

This account shall include the cost in place of structures and improvements used in connection with transmission operations. (See electric plant instruction 8.)

# 353 Station equipment.

This account shall include the cost installed of transforming, conversion, and switching equipment used for the purpose of changing the characteristics of electricity in connection with its transmission or for controlling transmission circuits.

- 1. Bus compartments, concrete, brick, and sectional steel, including items permanently attached thereto.
- 2. Conduit, including concrete and iron duct runs not a part of a building.

- 3. Control equipment, including batteries battery charging equipment, transformers, remote relay boards, and connections.
- 4. Conversion equipment, including transformers, indoor and outdoor, frequency changers, motor generator sets, rectifiers, synchronous converters, motors, cooling equipment, and associated connections.
  - 5. Fences.
- 6. Fixed and synchronous condensers, including transformers, switching equipment blowers, motors and connections.
- 7. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
- 8. General station equipment, including air compressors, motors, hoists, cranes, test equipment, ventilating equipment, etc.

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- 9. Platforms, railings, steps, gratings, etc. appurtenant to apparatus listed herein.
- 10. Primary and secondary voltage connections, including bus runs and supports, insulators, potheads, lightning arresters, cable and wire runs from and to outdoor connections or to manholes and the associated regulators, reactors, resistors, surge arresters, and accessory equipment.
  - 11. Switchboards, including meters, relays, control wiring, etc.
- 12. Switching equipment, indoor and outdoor, including oil circuit breakers and operating mechanisms, truck switches, and disconnect switches.
  - 13. Tools and appliances.

### 354 Towers and fixtures.

This account shall include the cost installed of towers and appurtenant fixtures used for supporting overhead transmission conductors.

- 1. Anchors, guys, braces.
- 2. Brackets.
- 3. Crossarms, including braces.
- 4. Excavation, backfill, and disposal of excess excavated material.
- 5. Foundations.
- 6. Guards.
- 7. Insulator pins and suspension bolts.

- 8. Ladders and steps.
- 9. Railings, etc.
- 10. Towers.

### 355 Poles and fixtures.

This account shall include the cost installed of transmission line poles, wood, steel, concrete, or other material, together with appurtenant fixtures used for supporting overhead transmission conductors.

### **ITEMS**

- 1. Anchors, head arm and other guys, including guy guards, guy clamps, strain insulators, pole plates, etc.
  - 2. Brackets.
  - 3. Crossarms and braces.
- 4. Excavation and backfill, including disposal of excess excavated material.
  - 5. Extension arms.
  - 6. Gaining, roofing stenciling, and tagging.
  - 7. Insulator pins and suspension bolts.
  - 8. Paving.
  - 9. Pole steps.
  - 10. Poles, wood, steel, concrete, or other material.
  - 11. Racks complete with insulators.
  - 12. Reinforcing and stubbing.
  - 13. Settings.
  - 14. Shaving and painting.

### 356 Overhead conductors and devices.

This account shall include the cost installed of overhead conductors and devices used for transmission purposes.

- 1. Circuit breakers.
- 2. Conductors, including insulated and bare wires and cables.
- 3. Ground wires and ground clamps.
- 4. Insulators, including pin, suspension, and other types.
- 5. Lightning arresters.

- 6. Switches.
- 7. Other line devices.

## 357 Underground conduit.

This account shall include the cost installed of underground conduit and tunnels used for housing transmission cables or wires. (See electric plant instruction 14.)

### **ITEMS**

- 1. Conduit, concrete, brick or tile, including iron pipe, fiber pipe, Murray duct, and standpipe on pole or tower.
- 2. Excavation, including shoring, bracing, bridging, backfill, and disposal of excess excavated material.
- 3. Foundations and settings specially constructed for and not expected to outlast the apparatus for which provided.
  - 4. Lighting systems.
- 5. Manholes, concrete or brick, including iron or steel, frames and covers, hatchways, gratings, ladders, cable racks and hangers, etc., permanently attached to manholes.
  - 6. Municipal inspection.
- 7. Pavement disturbed, including cutting and replacing pavement, pavement base and sidewalks.
  - 8. Permits.
  - 9. Protection of street openings.
  - 10. Removal and relocation of subsurface obstructions.
- 11. Sewer connections, including drains, traps, tide valves, check valves, etc.
  - 12. Sumps, including pumps.
  - 13. Ventilating equipment.

# 358 Underground conductors and devices.

This account shall include the cost installed of underground conductors and devices used for transmission purposes.

### **ITEMS**

1. Armored conductors, buried, including insulators, insulating materials, splices, potheads, trenching, etc.

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- 2. Armored conductors, submarine, including insulators, insulating materials, splices in terminal chambers, potheads, etc.
- 3. Cables in standpipe, including pothead and connection from terminal chamber of manhole to insulators on pole.
  - 4. Circuit breakers.
  - 5. Fireproofing, in connection with any items listed herein.
- 6. Hollow-core oil-filled cable, including straight or stop joints pressure tanks, auxiliary air tanks, feeding tanks, terminals, potheads and connections, ventilating equipment, etc.
- 7. Lead and fabric covered conductors, including insulators, compound filled, oil filled, or vacuum splices, potheads, etc.
  - 8. Lightning arresters.
  - 9. Municipal inspection.
  - 10. Permits.
  - 11. Protection of street openings.
  - 12. Racking of cables.
  - 13. Switches.
  - 14. Other line devices.

### 359 Roads and trails.

This account shall include the cost of roads, trails, and bridges used primarily as transmission facilities.

### **ITEMS**

- 1. Bridges, including foundation piers, girders, trusses, flooring, etc.
  - 2. Clearing land.
  - 3. Roads, including grading, surfacing, culverts, etc.
- 4. Structures, constructed and maintained in connection with items included herein.
  - 5. Trails, including grading, surfacing, culverts, etc.

Note: The cost of temporary roads, bridges, etc., necessary during the period of construction but abandoned or dedicated to public use upon completion of the plant, shall be charged to the accounts appropriate for the construction.

# 360 Land and land rights.

This account shall include the cost of land and land rights used in connection with distribution operations. (See electric plant instruction 7.)

Note: Do not include in this account the cost of permits to erect poles, towers, etc., or to trim trees. (See account 364, Poles, Towers and Fixtures, and account 365, Overhead Conductors and Devices.)

### 361 Structures and improvements.

This account shall include the cost in place of structures and improvements used in connection with distribution operations. (See electric plant instruction 8.)

## 362 Station equipment.

This account shall include the cost installed of station equipment, including transformer banks, etc., which are used for the purpose of changing the characteristics of electricity in connection with its distribution.

- 1. Bus compartments, concrete, brick and sectional steel, including items permanently attached thereto.
- 2. Conduit, including concrete and iron duct runs not part of building.
- 3. Control equipment, including batteries, battery charging equipment, transformers, remote relay boards, and connections.
- 4. Conversion equipment, indoor and outdoor, frequency changers, motor generator sets, rectifiers, synchronous converters, motors, cooling equipment, and associated connections.
  - 5. Fences.
- 6. Fixed and synchronous condensers, including transformers, switching equipment, blowers, motors, and connections.
- 7. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
- 8. General station equipment, including air compressors, motors, hoists, cranes, test equipment, ventilating equipment, etc.
- 9. Platforms, railings, steps, gratings, etc., appurtenant to apparatus listed herein.
  - 10. Primary and secondary voltage connections, including bus runs

and supports, insulators, potheads, lightning arresters, cable and wire runs from and to outdoor connections or to manholes and the associated regulators, reactors, resistors, surge arresters, and accessory equipment.

- 11. Switchboards, including meters, relays, control wiring, etc.
- 12. Switching equipment, indoor and outdoor, including oil circuit breakers and operating mechanisms, truck switches, disconnect switches.

Note: The cost of rectifiers, series transformers, and other special station equipment devoted exclusively to street lighting service shall not be included in this account, but in account 373, Street Lighting and Signal Systems.

## 363 Storage battery equipment.

This account shall include the cost installed of storage battery equipment used for the purpose of supplying electricity to meet emergency or peak demands.

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### **ITEMS**

- 1. Batteries, including elements, tanks, tank insulators, etc.
- 2. Battery room connections, including cable or bus runs and connections.
- 3. Battery room flooring, when specially laid for supporting batteries.
- 4. Charging equipment, including motor generator sets and other charging equipment and connections, and cable runs from generator or station bus to battery room connections.
- 5. Miscellaneous equipment, including instruments, water stills, etc
- 6. Switching equipment, including endcell switches and connections, boards and panels, used exclusively for battery control, not part of general station switchboard.
- 7. Ventilating equipment, including fans and motors, louvers, and ducts not part of building.

Note: Storage batteries used for control and general station purposes shall not be included in this account but in the account appropriate for their use.

### 364 Poles, towers and fixtures.

This account shall include the cost installed of poles, towers, and appurtenant fixtures used for supporting overhead distribution conductors and service wires

### **ITEMS**

- 1. Anchors, head arm, and other guys, including guy guards, guy clamps, strain insulators, pole plates, etc.
  - 2. Brackets.
  - 3. Crossarms and braces.
- 4. Excavation and backfill, including disposal of excess excavated material.
  - 5. Extension arms.
  - 6. Foundations.
  - 7. Guards.
  - 8. Insulator pins and suspension bolts.
  - 9. Paving.
  - 10. Permits for construction.
  - 11. Pole steps and ladders.
  - 12. Poles, wood, steel, concrete, or other material.
  - 13. Racks complete with insulators.
  - 14. Railings.
  - 15. Reinforcing and stubbing.
  - 16. Settings.
  - 17. Shaving, painting, gaining, roofing, stenciling, and tagging.
  - 18. Towers.
  - 19. Transformer racks and platforms.

### 365 Overhead conductors and devices.

This account shall include the cost installed of overhead conductors and devices used for distribution purposes.

- 1. Circuit breakers.
- 2. Conductors, including insulated and bare wires and cables.
- 3. Ground wires, clamps, etc.
- 4. Insulators, including pin, suspension, and other types, and tie wire or clamps.

- 5. Lightning arresters.
- 6. Railroad and highway crossing guards.
- 7. Splices.
- 8. Switches.
- 9. Tree trimming, initial cost including the cost of permits therefor.
  - 10. Other line devices.

Note: The cost of conductors used solely for street lighting or signal systems shall not be included in this account but in account 373, Street Lighting and Signal Systems.

## 366 Underground conduit.

This account shall include the cost installed of underground conduit and tunnels used for housing distribution cables or wires.

### **ITEMS**

- 1. Conduit, concrete, brick and tile, including iron pipe, fiber pipe, Murray duct, and standpipe on pole or tower.
- 2. Excavation, including shoring, bracing, bridging, backfill, and disposal of excess excavated material.
- 3. Foundations and settings specially constructed for and not expected to outlast the apparatus for which constructed.
  - 4. Lighting systems.
- 5. Manholes, concrete or brick, including iron or steel frames and covers, hatchways, gratings, ladders, cable racks and hangers, etc., permanently attached to manholes.
  - 6. Municipal inspection.
- 7. Pavement disturbed, including cutting and replacing pavement, pavement base, and sidewalks.
  - 8. Permits.
  - 9. Protection of street openings.
  - 10. Removal and relocation of subsurface obstructions.
- 11. Sewer connections, including drains, traps, tide valves, check valves, etc.
  - 12. Sumps, including pumps.
  - 13. Ventilating equipment.

Note: The cost of underground conduit used solely for street lighting or signal systems shall be included in account 373, Street Lighting and Signal Systems.

## 367 Underground conductors and devices.

This account shall include the cost installed of underground conductors

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and devices used for distribution purposes.

### **ITEMS**

- 1. Armored conductors, buried, including insulators, insulating materials, splices, potheads, trenching, etc.
- 2. Armored conductors, submarine, including insulators, insulating materials, splices in terminal chamber, potheads, etc.
- 3. Cables in standpipe, including pothead and connection from terminal chamber or manhole to insulators on pole.
  - 4. Circuit breakers.
  - 5. Fireproofing, in connection with any items listed herein.
- 6. Hollow-core oil-filled cable, including straight or stop joints, pressure tanks, auxiliary air tanks, feeding tanks, terminals, potheads and connections, etc.
- 7. Lead and fabric covered conductors, including insulators, compound-filled, oil-filled or vacuum splices, potheads, etc.
  - 8. Lightning arresters.
  - 9. Municipal inspection.
  - 10. Permits.
  - 11. Protection of street openings.
  - 12. Racking of cables.
  - 13. Switches.
  - 14. Other line devices.

Note: The cost of underground conductors and devices used solely for street lighting or signal systems shall be included in account 373, Street Lighting and Signal Systems.

### 368 Line transformers.

A. This account shall include the cost installed of overhead and underground distribution line transformers and poletype and underground voltage regulators owned by the utility, for use in transforming electricity to the voltage at which it is to be used by the customer,

whether actually in service or held in reserve.

- B. When a transformer is permanently retired from service, the original installed cost thereof shall be credited to this account.
- C. The records covering line transformers shall be so kept that the utility can furnish the number of transformers of various capacities in service and those in reserve, and the location and the use of each transformer.

### **ITEMS**

- 1. Installation, labor of (first installation only).
- 2. Transformer cut-out boxes.
- 3. Transformer lightning arresters.
- 4. Transformers, line and network.
- 5. Capacitors.
- 6. Network protectors.

Note: The cost of removing and resetting line transformers shall not be charged to this account but to account 583, Overhead Line Expenses, or account 584, Underground Line Expenses (for Nonmajor utilities, account 561, Line and Station Labor, or account 562, Line and Station Supplies and Expenses), as appropriate. The cost of line transformers used solely for street lighting or signal systems shall be included in account 373, Street Lighting and Signal Systems.

### 369 Services.

This account shall include the cost installed of overhead and underground conductors leading from a point where wires leave the last pole of the overhead system or the distribution box or manhole, or the top of the pole of the distribution line, to the point of connection with the customer's outlet or wiring. Conduit used for underground service conductors shall be included herein.

- 1. Brackets.
- 2. Cables and wires.
- 3. Conduit.
- 4. Insulators.
- 5. Municipal inspection.
- 6. Overhead to underground, including conduit or standpipe and conductor from last splice on pole to connection with customer's wiring.

- 7. Pavement disturbed, including cutting and replacing pavement, pavement base, and sidewalks.
  - 8. Permits.
  - 9. Protection of street openings.
  - 10. Service switch.
  - 11. Suspension wire.

### 370 Meters.

- A. This account shall include the cost installed of meters or devices and appurtenances thereto, for use in measuring the electricity delivered to its users, whether actually in service or held in reserve.
- B. When a meter is permanently retired from service, the installed cost included herein shall be credited to this account.
- C. The records covering meters shall be so kept that the utility can furnish information as to the number of meters of various capacities in service and in

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reserve as well as the location of each meter owned.

### **ITEMS**

- 1. Alternating current, watt-hour meters.
- 2. Current limiting devices.
- 3. Demand indicators.
- 4. Demand meters.
- 5. Direct current watt-hour meters.
- 6. Graphic demand meters.
- 7. Installation, labor of (first installation only).
- 8. Instrument transformers.
- 9. Maximum demand meters.
- 10. Meter badges and their attachments.
- 11. Meter boards and boxes.
- 12. Meter fittings, connections, and shelves (first set).
- 13. Meter switches and cut-outs.
- 14. Prepayment meters.
- 15. Protective devices.
- 16. Testing new meters.

Note A: This account shall not include meters for recording output of a generating station, substation meters, etc. It includes only those

meters used to record energy delivered to customers.

Note B: The cost of removing and resetting meters shall be charged to account 586, Meter Expenses (for Nonmajor utilities, account 556, Meter Expenses).

## 371 Installations on customers' premises.

This account shall include the cost installed of equipment on the customer's side of a meter when the utility incurs such cost and when the utility retains title to and assumes full responsibility for maintenance and replacement of such property. This account shall not include leased equipment, for which see account 372, Leased Property on Customers' Premises.

### **Items**

- 1. Cable vaults.
- 2. Commercial lamp equipment.
- 3. Foundations and settings specially provided for equipment included herein.
  - 4. Frequency changer sets.
  - 5. Motor generator sets.
  - 6. Motors.
  - 7. Switchboard panels, high or low tension.
  - 8. Wire and cable connections to incoming cables.

Note: Do not include in this account any costs incurred in connection with merchandising, jobbing, or contract work activities.

# 372 Leased property on customers' premises.

This account shall include the cost of electric motors, transformers, and other equipment on customers' premises (including municipal corporations), leased or loaned to customers, but not including property held for sale.

Note A: The cost of setting and connecting such appliances or equipment on the premises of customers and the cost of resetting or removal shall not be charged to this account but to operating expenses, account 587, Customer Installations Expenses (for Nonmajor utilities, account 567, Customer Installations Expenses).

Note B: Do not include in this account any costs incurred in connection with merchandising, jobbing, or contract work activities.

### 373 Street lighting and signal systems.

This account shall include the cost installed of equipment used wholly for public street and highway lighting or traffic, fire alarm, police, and other signal systems.

### **ITEMS**

- 1. Armored conductors, buried or submarine, including insulators, insulating materials, splices, trenching, etc.
  - 2. Automatic control equipment.
- 3. Conductors, overhead or underground, including lead or fabric covered, parkway cables, etc., including splices, insulators, etc.
- 4. Lamps, are, incandescent, or other types, including glassware, suspension fixtures, brackets, etc.
  - 5. Municipal inspection.
  - 6. Ornamental lamp posts.
- 7. Pavement disturbed, including cutting and replacing pavement, pavement base, and sidewalks.
  - 8. Permits.
  - 9. Posts and standards.
  - 10. Protection of street openings.
  - 11. Relays or time clocks.
  - 12. Series contactors.
  - 13. Switches.
  - 14. Transformers, pole or underground.

## 389 Land and land rights.

This account shall include the cost of land and land rights used for utility purposes, the cost of which is not properly includible in other land and land rights accounts. (See electric plant instruction 7.)

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# 390 Structures and improvements.

This account shall include the cost in place of structures and improvements used for utility purposes, the cost of which is not

properly includible in other structures and improvements accounts (See electric plant instruction 8.)

## 391 Office furniture and equipment.

This account shall include the cost of office furniture and equipment owned by the utility and devoted to utility service, and not permanently attached to buildings, except the cost of such furniture and equipment which the utility elects to assign to other plant accounts on a functional basis.

### **ITEMS**

- 1. Bookcases and shelves.
- 2. Desks, chairs, and desk equipment.
- 3. Drafting-room equipment.
- 4. Filing, storage, and other cabinets.
- 5. Floor covering.
- 6. Library and library equipment.
- 7. Mechanical office equipment, such as accounting machines, typewriters, etc.
  - 8. Safes.
  - 9. Tables.

# 392 Transportation equipment.

This account shall include the cost of transportation vehicles used for utility purposes.

### **ITEMS**

- 1. Airplanes.
- 2. Automobiles.
- 3. Bicycles.
- 4. Electrical vehicles.
- 5. Motor trucks.
- 6. Motorcycles.
- 7. Repair cars or trucks.
- 8. Tractors and trailers.
- 9. Other transportation vehicles.

# 393 Stores equipment.

This account shall include the cost of equipment used for the receiving, shipping, handling, and storage of materials and supplies.

### **ITEMS**

- 1. Chain falls.
- 2. Counters.
- 3. Cranes (portable).
- 4. Elevating and stacking equipment (portable).
- 5. Hoists.
- 6. Lockers.
- 7. Scales.
- 8. Shelving.
- 9. Storage bins.
- 10. Trucks, hand and power driven.
- 11. Wheelbarrows.

# 394 Tools, shop and garage equipment.

This account shall include the cost of tools, implements, and equipment used in construction, repair work, general shops and garages and not specifically provided for or includible in other accounts.

- 1. Air compressors.
- 2. Anvils.
- 3. Automobile repair shop equipment.
- 4. Battery charging equipment.
- 5. Belts, shafts and countershafts.
- 6. Boilers.
- 7. Cable pulling equipment.
- 8. Concrete mixers.
- 9. Drill presses.
- 10. Derricks.
- 11. Electric equipment.
- 12. Engines.
- 13. Forges.
- 14. Furnaces.
- 15. Foundations and settings specially constructed for and not expected to outlast the equipment for which provided.
  - 16. Gas producers.
  - 17. Gasoline pumps, oil pumps and storage tanks.

- 18. Greasing tools and equipment.
- 19. Hoists.
- 20. Ladders.
- 21. Lathes.
- 22. Machine tools.
- 23. Motor-driven tools.
- 24. Motors.
- 25. Pipe threading and cutting tools
- 26. Pneumatic tools.
- 27. Pumps.
- 28. Riveters.
- 29. Smithing equipment.
- 30. Tool racks.
- 31. Vises.
- 32. Welding apparatus.
- 33. Work benches.

# 395 Laboratory equipment.

This account shall include the cost installed of laboratory equipment used for general laboratory purposes and not specifically provided for or includible in other departmental or functional plant accounts.

### **ITEMS**

1. Ammeters.

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- 2. Current batteries.
- 3. Frequency changers.
- 4. Galvanometers.
- 5. Inductometers.
- 6. Laboratory standard millivolt meters.
- 7. Laboratory standard volt meters.
- 8. Meter-testing equipment.
- 9. Millivolt meters.
- 10. Motor generator sets.
- 11. Panels.
- 12. Phantom loads.
- 13. Portable graphic ammeters, voltmeters, and wattmeters.
- 14. Portable loading devices.

- 15. Potential batteries.
- 16. Potentiometers.
- 17. Rotating standards.
- 18. Standard cell, reactance, resistor, and shunt.
- 19. Switchboards.
- 20. Synchronous timers.
- 21. Testing panels.
- 22. Testing resistors.
- 23. Transformers.
- 24. Voltmeters.
- 25. Other testing, laboratory, or research equipment not provided for elsewhere.

## 396 Power operated equipment.

This account shall include the cost of power operated equipment used in construction or repair work exclusive of equipment includible in other accounts. Include, also, the tools and accessories acquired for use with such equipment and the vehicle on which such equipment is mounted.

### **ITEMS**

- 1. Air compressors, including driving unit and vehicle.
- 2. Back filling machines.
- 3. Boring machines.
- 4. Bulldozers.
- 5. Cranes and hoists.
- 6. Diggers.
- 7. Engines.
- 8. Pile drivers.
- 9. Pipe cleaning machines.
- 10. Pipe coating or wrapping machines.
- 11. Tractors--Crawler type.
- 12. Trenchers.
- 13. Other power operated equipment.

Note: It is intended that this account include only such large units as are generally self-propelled or mounted on movable equipment.

# 397 Communication equipment.

This account shall include the cost installed of telephone, telegraph, and wireless equipment for general use in connection with utility operations.

#### **ITEMS**

- 1. Antennae.
- 2. Booths.
- 3. Cables.
- 4. Distributing boards.
- 5. Extension cords.
- 6. Gongs
- 7. Hand sets, manual and dial.
- 8. Insulators.
- 9. Intercommunicating sets.
- 10. Loading coils.
- 11. Operators' desks.
- 12. Poles and fixtures used wholly for telephone or telegraph wire.
- 13. Radio transmitting and receiving sets.
- 14. Remote control equipment and lines.
- 15. Sending keys.
- 16. Storage batteries
- 17. Switchboards.
- 18. Telautograph circuit connections.
- 19. Telegraph receiving sets.
- 20. Telephone and telegraph circuits.
- 21. Testing instruments.
- 22. Towers.
- 23. Underground conduit used wholly for telephone or telegraph wires and cable wires.

## 398 Miscellaneous equipment.

This account shall include the cost of equipment, apparatus, etc., used in the utility operations, which is not includible in any other account of this system of accounts.

- 1. Hospital and infirmary equipment.
- 2. Kitchen equipment.
- 3. Employees' recreation equipment.
- 4 Radios

- 5. Restaurant equipment.
- 6. Soda fountains.
- 7. Operators' cottage furnishings.
- 8. Other miscellaneous equipment.

Note: Miscellaneous equipment of the nature indicated above wherever practicable shall be included in the utility plant accounts on a functional basis.

# 399 Other tangible property.

This account shall include the cost of tangible utility plant not provided for elsewhere.

### **Income Chart of Accounts**

### 1. UTILITY OPERATING INCOME

- 400 Operating revenues.
- 401 Operation expense.
- 402 Maintenance expense.
- 403 Depreciation expense.
- 404 Amortization of limited-term electric plant.
- 405 Amortization of other electric plant.

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- 406 Amortization of electric plant acquisition adjustments.
- 407 Amortization of property losses, unrecovered plant and regulatory study costs.
- 407.3 Regulatory debits.
- 407.4 Regulatory credits.
- 408 [Reserved]
- 408.1 Taxes other than income taxes, utility operating income.
- 409 [Reserved]
- 409.1 Income taxes, utility operating income.
- 410 [Reserved]
- 410.1 Provisions for deferred income taxes, utility operating income.
- 411 [Reserved]
- 411.1 Provision for deferred income taxes--Credit, utility operating income.
- 411.3 [Reserved]

- 411.4 Investment tax credit adjustments, utility operations.
- 411.6 Gains from disposition of utility plant.
- 411.7 Losses from disposition of utility plant.
- 411.8 Gains from disposition of allowances.
- 411.9 Losses from disposition of allowances.
- 412 Revenues from electric plant leased to others.
- 413 Expenses of electric plant leased to others.
- 414 Other utility operating income.

### 2. OTHER INCOME AND DEDUCTIONS

### A. Other Income

- 415 Revenues from merchandising, jobbing, and contract work.
- 416 Costs and expenses of merchandising, jobbing, and contract work.
- 417 Revenues from nonutility operations.
- 417.1 Expenses of nonutility operations.
- 418 Nonoperating rental income.
- 418.1 Equity in earnings of subsidiary companies (Major only).
- 419 Interest and dividend income.
- 419.1 Allowance for other funds used during construction.
- 420 Investment tax credits.
- 421 Miscellaneous nonoperating income.
- 421.1 Gain on disposition of property.

### B. Other Income Deductions

- 421.2 Loss on disposition of property.
- 425 Miscellaneous amortization.
- 426 [Reserved]
- 426.1 Donations.
- 426.2 Life insurance.
- 426.3 Penalties.
- 426.4 Expenditures for certain civic, political and related activities.
- 426.5 Other deductions.

Total other income deductions.

Total Other Income and Deductions

# C. Taxes Applicable To Other Income and Deductions

408.2 Taxes other than income taxes, other income and deductions.

- 409.2 Income tax, other income and deductions.
- 409.3 Income taxes, extraordinary items.
- 410.2 Provision for deferred income taxes, other income and deductions.
- 411.2 Provision for deferred income taxes--Credit, other income and deductions.
- 411.5 Investment tax credit adjustments, nonutility operations.
- 420 Investment tax credits.

Total taxes on other income and deductions.

Net other income and deductions.

### 3. INTEREST CHARGES

- 427 Interest on long-term debt.
- 428 Amortization of debt discount and expense.
- 428.1 Amortization of loss on reacquired debt.
- 429 Amortization of premium on debt-Cr.
- 429.1 Amortization of gain on reacquired debt--Credit.
- 430 Interest on debt to associated companies.
- 431 Other interest expense.
- 432 Allowance for borrowed funds used during construction--Credit.

### 4. EXTRAORDINARY ITEMS

- 434 Extraordinary income.
- 435 Extraordinary deductions.